



QUALIFICATION FILE

Ornamental Fish Farmer

☒ Short Term Training (STT) ☐ Long Term Training (LTT) ☒ Apprenticeship

☒ Upskilling ☐ Dual/Flexi Qualification ☒ For ToT ☒ For ToA

☒ General ☐ Multi-skill (MS) ☐ Cross Sectoral (CS) ☐ Future Skills ☐ OEM

NCrF/NSQF Level: 4

Submitted By:

Agriculture Skill Council of India

Unit No. 101, First Floor, Greenwoods Plaza, Block 'B', Greenwoods City, Sector 45, Gurugram -122009, Haryana.

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Section 1: Basic Details

1.	Qualification Name	Ornamental Fish Farmer																	
2.	Sector/s	Agriculture																	
3.	Type of Qualification: ☐ New ☒ Revised ☐ Has Electives/Options ☐ OEM	NQR Code & version of existing qualification: 2022/AGR/ASCI/06538 & Version 1.0	Qualification Name of existing/previous version: Ornamental Fish Farmer																
4.	a. OEM Name b. Qualification Name (Wherever applicable)	NA																	
5.	National Qualification Register (NQR) Code &Version (Will be issued after NSQC approval)	QG-04-AG-03560-2025-V2-ASCI & Version 2.0	6. NCrf/NSQF Level: 4																
7.	Award (Certificate/Diploma/Advance Diploma/ Any Other (Wherever applicable specify multiple entry/exits also & provide details in annexure)	Certificate																	
8.	Brief Description of the Qualification	An Ornamental Fish Farmer is responsible for breeding, seed production and rearing of seeds of different types of ornamental fish of domestic and export value. The individual may also set up and maintain marine and freshwater aquariums and possess knowledge on aquarium accessories like aerator, filters, feeding, aquatic weeds and other substratum materials																	
9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	a. Entry Qualification & Relevant Experience: <table border="1"> <thead> <tr> <th>S. No.</th> <th>Academic/Skill Qualification (with Specialization - if applicable)</th> <th>Required Experience (with Specialization - if applicable)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>12th or Equivalent</td> <td></td> </tr> <tr> <td>2</td> <td>10th Class</td> <td>3-year of relevant experience in Agriculture and allied sectors</td> </tr> <tr> <td>3</td> <td>Previous NSQF Level 3.5</td> <td>1.5 Years of relevant experience in Agriculture and allied sectors</td> </tr> <tr> <td>4</td> <td>Previous NSQF Level 3</td> <td>3 Years of relevant experience in Agriculture and allied sectors</td> </tr> </tbody> </table> b. Age: NA			S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1	12 th or Equivalent		2	10th Class	3-year of relevant experience in Agriculture and allied sectors	3	Previous NSQF Level 3.5	1.5 Years of relevant experience in Agriculture and allied sectors	4	Previous NSQF Level 3	3 Years of relevant experience in Agriculture and allied sectors
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)																	
1	12 th or Equivalent																		
2	10th Class	3-year of relevant experience in Agriculture and allied sectors																	
3	Previous NSQF Level 3.5	1.5 Years of relevant experience in Agriculture and allied sectors																	
4	Previous NSQF Level 3	3 Years of relevant experience in Agriculture and allied sectors																	
10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrf))	Min: 13 Max: 15	11. Common Cost Norm Category (I/II/III) (wherever applicable): I																

12.	Any Licensing requirements for Undertaking Training on This Qualification <i>(wherever applicable)</i>	NA																						
13.	Training Duration by Modes of Training Delivery <i>(Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)</i>	☒ Offline ☐ Online ☐ Blended <table border="1"> <thead> <tr> <th>Training Delivery Modes</th> <th>Theory (Hours)</th> <th>Practical (Hours)</th> <th>OJT Mandatory (Hours)</th> <th>OJT Recommended (Hours)</th> <th>Total (Hours)</th> </tr> </thead> <tbody> <tr> <td>Classroom (offline)</td> <td>150</td> <td>150</td> <td>90</td> <td></td> <td>390</td> </tr> <tr> <td>Online</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <i>(Refer Blended Learning Annexure for details)</i>					Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	150	150	90		390	Online					
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)																			
Classroom (offline)	150	150	90		390																			
Online																								
14.	Aligned to NCO/ISCO Code/s <i>(if no code is available mention the same)</i>	NCO-2015/6221																						
15.	Progression path after attaining the qualification <i>(Please show Professional and Academic progression)</i>	Ornamental Fish Farmer (L4), Aquaculture Technical Supervisor (L5)																						
16.	Other Indian languages in which the Qualification & Model Curriculum are being submitted	Hindi																						
17.	Is similar Qualification(s) available on NQR-if yes, justification for this qualification	☐ Yes ☒ No URLs of similar Qualifications:																						
18.	Is the Job Role Amenable to Persons with Disability	☒ Yes ☐ No If “Yes”, specify applicable type of Disability: SHI,LD																						
19.	How Participation of Women will be Encouraged	Batches specific to women will be formed																						
20.	Are Greening/ Environment Sustainability Aspects Covered <i>(Specify the NOS/Module which covers it)</i>	☒ Yes ☐ No DGT/VSQ/N0102 (v1.0)																						
21.	Is Qualification Suitable to be Offered in Schools/Colleges	Schools ☒ Yes ☐ No Colleges ☒ Yes ☐ No																						
22.	Name and Contact Details of Submitting / Awarding Body SPOC <i>(In case of CS or MS, provide details of both Lead AB & Supporting ABs)</i>	Name: Ms Purnambica.K Email: Standards@asci-india.com Website: www.asci-india.com Contact No.: 0124-4670029																						
23.	Final Approval Date by NSQC: 18-02-2025	24. Validity Duration: 3 years post NSQC Approval			25. Next Review Date: 18-02-2028																			

Section 2: Module Summary

NOS/s of Qualifications

(In exceptional cases these could be described as components)

Mandatory NOS/s:

Specify the training duration and assessment criteria at NOS/ Module level. For further details refer curriculum document.

Th.-Theory **Pr.**-Practical **OJT**-On the Job **Man.**-Mandatory Training **Rec.**-Recommended **Proj.**-Project

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/Non-Core	NCrF/NS QF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1	Carry out pond and tank preparation activities	AGR/N4936 (v3.0)	Core	4	2	25	35			60	30	40		30	100	30
2	Assess the feed requirements and culture live feed	AGR/N4937 (v3.0)	Core	4	2	20	40			60	30	40		30	100	25
3	Stock, maintain and harvest the ornamental fish	AGR/N4938 (v4.0)	Core	4	2	20	40			60	30	40		30	100	30
4	Undertake basic entrepreneurial activities for small Enterprise	AGR/N9908 (v3.0)	Non-Core	4	1	15	15			30	30	40		30	100	5
5	Follow the hygiene and safety practices in culture operations	AGR/N4955 (v2.0)	Non-Core	4	1	10	20			30	30	40		30	100	5
6	Employability Skills (60 Hours)	DGT/VSQ/N 0102 (v1.0)	Non-Core	4	2	60				60	20	30			50	5
7	OJT (Mandatory)				3			90		90						
Duration (in Hours) / Total Marks					13	150	150	90		390	170	230		150	550	100

Optional NOS/s: Aquarium

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/Non-Core	NCrF/NS QF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.	Set up and maintain marine and freshwater aquariums	AGR/N4963 (v2.0)	Core	4	2	30	30			60	30	40		30	100	10
Duration (in Hours) / Total Marks					2	30	30			60	30	40		30	100	10

Assessment - Minimum Qualifying Percentage

Please specify **any one** of the following:

Minimum Pass Percentage – Aggregate at qualification level: 70 % (Every Trainee should score specified minimum aggregate passing percentage at qualification level to successfully clear the assessment.)

Minimum Pass Percentage – NOS/Module-wise: ____ % (Every Trainee should score specified minimum passing percentage in each mandatory and selected elective NOS/Module to successfully clear the assessment.)

Section 3: Training Related

1.	Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	Diploma (Fisheries) with 3 years of relevant industry experience in Ornamental Fish Farming and Management* *Regular Diploma of more than 15 months OR Graduate (Agriculture/ Zoology) with 2 years of relevant industry experience in Ornamental Fish Farming and Management** **For the school Program minimum qualification of the trainer should be Graduate (Fisheries Science/Industrial Fish & Fisheries/Zoology). Their Teaching experience will be considered industry experience. OR B.Sc. (Fisheries Science)
2.	Master Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	5 years of training experience in Ornamental Fish farming and management after Graduation (Agriculture/ Zoology) and 2 years of relevant industry experience in Ornamental Fish Farming and Management OR 5 years of training experience in Ornamental Fish farming and management after B.Sc. (Fisheries Science)
3.	Tools and Equipment Required for Training	☒ Yes ☐ No (If "Yes", details to be provided in Annexure)
4.	In Case of Revised Qualification, Details of Any Upskilling Required for Trainer	NA

Section 4: Assessment Related

1.	Assessor's Qualification and experience in relevant sector (in years) <i>(as per NCVET guidelines)</i>	B.F.Sc with 4 years of relevant industry experience in Fisheries Science/ Zoology/ Aquaculture/ Applied aquaculture/ Marine Biology or related streams and fields OR B. Tech (Fisheries and related streams) with 4 years of relevant industry experience in Fisheries Science/ Zoology/ Aquaculture/ Applied aquaculture/ Marine Biology or related streams and fields OR B. Sc (Fisheries and related streams) with 5 years of relevant industry experience in Fisheries Science/ Zoology/ Aquaculture/ Applied aquaculture/ Marine Biology or related streams and fields OR M. Tech (Aquaculture/ Fisheries and related streams) with 2 years of relevant industry experience in Fisheries Science/ Zoology/ Aquaculture/ Applied aquaculture/ Marine Biology or related streams and fields OR M. F. Sc (Fisheries and related streams) with 2 years of relevant industry experience in Fisheries Science/ Zoology/ Aquaculture/ Applied aquaculture/ Marine Biology or related streams and fields OR M Sc (Fisheries and related streams) with 2 years of relevant industry experience in Fisheries Science/ Zoology/ Aquaculture/ Applied aquaculture/ Marine Biology or related streams and fields OR PhD (Fisheries and related streams) with 1 year of relevant experience in Fisheries Science/ Zoology/ Aquaculture/ Applied aquaculture/ Marine Biology or related streams and fields
2.	Proctor's Qualification and experience in relevant sector (in years) <i>(as per NCVET guidelines)</i>	Diploma/Graduate (It is mandatory for a proctor to have technical knowledge/IT knowledge Once a proctor has been on-boarded by any AA, they are oriented about skill ecosystem along with do's and don'ts.)
3.	Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) <i>(as per NCVET guidelines)</i>	M. Tech (Aquaculture/ Fisheries and related streams) with 10 years of relevant industry experience in Fisheries Science/ Zoology/ Aquaculture/ Applied aquaculture/ Marine Biology or related streams and fields OR M. F. Sc (Fisheries and related streams) with 10 years of relevant industry experience in Fisheries Science/ Zoology/ Aquaculture/ Applied aquaculture/ Marine Biology or related streams and fields OR M Sc (Fisheries and related streams) with 10 years of relevant industry experience in Fisheries Science/ Zoology/ Aquaculture/ Applied aquaculture/ Marine Biology or related streams and fields

4.	Assessment Mode <i>(Specify the assessment mode)</i>	Offline
5.	Tools and Equipment Required for Assessment	☒ Same as for training ☒ Yes ☐ No <i>(details to be provided in Annexure-if it is different for Assessment)</i>

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	Latest Skill Gap Study (not older than 2 years) (Yes/No): Yes
2.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): No
3.	Government /Industry initiatives/ requirement (Yes/No): Government Initiative, part of PMKVY 4.0
4.	Number of Industry validation provided: 7
5.	Estimated nos. of persons to be trained and employed: 5000
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: Department of fisheries, Ministry of Fisheries, Animal husbandry and Dairying

Section 6: Annexure & Supporting Documents Check List

Specify Annexure Name / Supporting document file name

1.	Annexure: NCrf/NSQF level justification based on NCrf level/NSQF descriptors <i>(Mandatory)</i>	<i>Annexure-1</i>
2.	Annexure: List of tools and equipment relevant for qualification <i>(Mandatory, except in case of online course)</i>	<i>Annexure-2</i>
3.	Annexure: Detailed Assessment Criteria <i>(Mandatory)</i>	<i>Annexure-5</i>
4.	Annexure: Assessment Strategy <i>(Mandatory)</i>	<i>Annexure-6</i>
5.	Annexure: Blended Learning <i>(Mandatory, in case selected Mode of delivery is “Blended Learning”)</i>	NA
6.	Annexure: Multiple Entry-Exit Details <i>(Mandatory, in case qualification has multiple Entry-Exit)</i>	NA
7.	Annexure: Acronym and Glossary <i>(Optional)</i>	
8.	Supporting Document: Model Curriculum <i>(Mandatory – Public view)</i>	<i>Annexure-7</i>
9.	Supporting Document: Career Progression <i>(Mandatory - Public view)</i>	Ornamental fish farmer (L4), Aquaculture Technical Supervisor (L5)
10.	Supporting Document: Occupational Map <i>(Mandatory)</i>	<i>Annexure-8</i>
11.	Supporting Document: Assessment SOP <i>(Mandatory)</i>	<i>Annexure-9</i>

12.	Any other document you wish to submit:	
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Annexure 1: Evidence of Level

NCrF/NSQF Level Descriptors	Key requirements of the job role/ outcome of the qualification	How the job role/ outcomes relate to the NCrF/NSQF level descriptor	NCrF/NSQF Level
Professional Theoretical Knowledge/Process	• Prepare the pond • Set up the tank • Procure the ingredients for feed and culturing live feed • Culture live feed • Carry out fish breeding • Stock and feed the fish	An Ornamental Farmer is responsible for breeding, seed production and rearing of seeds of different types of ornamental fish of domestic and export value. The individual may also set up and maintain marine and freshwater aquariums.	4
Professional and Technical Skills/ Expertise/ Professional Knowledge	• Manage the water quality • Follow the safety protocols • the process of preparing a pond for fish culture • the process of fabrication and installation of a tank in a pond • Carry out health and disease management	The job holder is expected to have knowledge of methods of setting up tanks and preparation of ponds, how to fill the tanks with required water after proper filtration, methods of fixing, air pumps, aerators, filters and aquatic ornamental plants, methods of pond preparation and culturing live feed, selection of appropriate species for breeding, overall functioning of the facility, type of ornamental fishes and feed requirements, selection of ingredients for feed, preparation of feed, process of live feed culture, feeding techniques, breeding technology for ornamental fish, methods of setting up substrates for breeding of fish, use of aerators to provide required level of aeration, methods of maintaining water quality, prevention of disease occurrence, methods of maintaining safety checks etc.	4

Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	• Optimise resource utilisation • Practice inclusion at work • Maintain the water body and its hygiene • Maintain personal health and safety • Maintain the aquarium and water quality	The job holder is expected to recall and demonstrate practical skill, routine and repetitive in narrow range of application, using appropriate rule and tool, using quality concepts. For instance, the job holder has to fill the tanks/ponds with aged freshwater, or sea water depending on the species to be reared, provide tanks/ponds with appropriate lifesaving equipments (air pumps, aerators, filters) and aquatic ornamental plants, install re circulatory systems, monitor the water quality on a regular basis, identify potential diseases and their prophylaxis, undertake quarantine protocols, provide required aeration and maintain optimum water quality parameters, observe and monitor the breeding process, rear the juvenile fish to the marketable size, undertake necessary biosecurity protocols for disease prevention, use appropriate packing material for transport based on the number and size of the fish ensure adherence to safety, hygiene and sanitation practices.	4
Broad Learning Outcomes/Core Skill	• Assess the feed requirement of fish • Procure and stock the ornamental fish seed • the process of installing equipment in tanks/ponds, such as air pumps, aerators, filters, etc. • Carry out feed and health management • use of e-payment methods and computer to process payments and maintain records • respectively • Harvest, condition and pack the fish • Market the harvested fish	The job holder is expected to communicate with required clarity, read internal information documents sent by internal teams, read equipment manuals and process documents to understand the equipments operation and process requirement, record and maintain information related to the process of carrying out ornamental fish culture, effectively communicate with co-workers. The Job holder is required to calculate ration requirement for different stages and species, identify feeding cycles and routine, carry out nutritional prophylactics before harvesting, use appropriate tools and equipment for harvesting, determine the correct dose of medicines / disinfectants to cure diseases, separate the diseased fish from the healthy fish and put them in a hospital tank.	4

Responsibility	- Breeding, seed production and rearing of seeds - Maintaining marine and freshwater aquariums	An Ornamental Farmer is responsible for breeding, seed production and rearing of seeds of different types of ornamental fish of domestic and export value. The individual may also set up and maintain marine and freshwater aquariums.	4
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Annexure 2: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size: 30

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1	Spawning cone	Nos	1
2	Spawning mop	Nos	1
3	Gray slates	Nos	1
4	Profi feeders	Nos	2
5	Dip net or any other harvesting gear	Nos	2
6	Weed eradication equipment	Nos	2
7	Reverse osmosis filters	Nos	1
8	Eggs	Type	4
9	Fish- Ornamental variety	Nos	1
10	Canopies and hoods	Nos	2
11	Aquarium heaters	Nos	1
12	Video Recording Equipment	Nos	1
13	Face Masks	Nos	30
14	pH meter	Nos	1
15	Rubber gloves	Nos	30
16	Oxygen cylinder	Nos	1
17	Sponge filter	Nos	1
18	Water pump	Nos	1
19	Aquarium feeders	Nos	1
20	Aerators	Nos	1
21	Tubers	Nos	1

22	Mechanical filters	Nos	1
23	Safety shoes	Nos	5
24	Goggles	Nos	2
25	Surgical Knife	Nos	2
26	Feeding trays	Nos	3
27	Air or Oxygen diffusers	Nos	1

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Whiteboard
2. Markers

Annexure 3: Industry Validations Summary

Provide the summary information of all the industry validations in table. This is not required for OEM qualifications.

S. No	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile (if available)
1	KVK, Changlang	Dr. Devendra singh Chhonkar	Senior Scientist & Head	P.O. Jairampur, district Changlang, Arunachal Pradesh, PIN- 792 121	8119976400	kvkchanglang@gmail.com	
2	ELIM CHEM PRIVATE LTD	Dr. Narasimha Murty Kinjarapu	GM-Technical & Product Development Manager	Old Bowenpally, Secunderabad, Hyderabad	9885867640	narasimhaau@gmail.com	
3	Aum Academia Private Limited,	Damodar Satapathy	Director	Aum Academia Private Limited, Plot No. K9-B/509, Kalinga Nagar, Patrapada, Bhubaneswar 751019; Odisha State	9861077340	sp1959satapathy@gmail.com	
4	Kailash Fisheries and Aquatics	Akshya Kumar Sahu	Proprietor	M/s. Kailash Fisheries and Aquatics Astapura, Baisinga, Mayurbhanj, Odisha	9437147897	akshyakumarsahu1977@gmail.com	
5	KVK Tondapur, Hingoli	Dr.P.P.Shelke	Senior Scientist and Head.	Krishi Vigyan Kendra, Tondapur Ta. Kalamnuri Distt Hingoli	9765390976	kvkkingoli@gmail.com, ppschelke@gmail.com	
6	KVK kashipur- U.S Nagar	Dr. S.K.Sharma	Professor (Fisheries Science)	Krishi vigyan kendra ,kashipur distt: udham singh nagar-	9412926530	kvvkashipur@gmail.com/sk03sharma@gmail.com	
7	Shree Kailash Agrovet Pvt. Ltd.	Pratima Sahu	Managing Director	plot no-82, At-Astupura, Mahulpatna, Baisinga, Mayurbhanj, Odisha	8144261863	pratimaasahu@gmail.com	

Annexure 4: Training & Employment Details

Training and Employment Projections:

Year	Total Candidates		Women		People with Disability	
	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities
2025-26	1600	200	60	20		
2026-27	1700	200	60	20		
2027-28	1700	200	60	20		

Data to be provided year-wise for next 3 years

Training, Assessment, Certification, and Placement Data for previous versions of qualifications:

Qualification Version	Year	Total Candidates				Women				People with Disability			
		Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed
4.0	2022-23	18	18	18	0	12	12	12	0	0	0	0	0
3.0	2023-24	674	363	330	0	355	184	168	0	0	0	0	0
3.0	2024-25	991	583	554	0	356	182	169	0	0	0	0	0

Applicable for revised qualifications only, data to be provided year-wise for past 3 years.

List Schemes in which the previous version of Qualification was implemented:

1. PMKVY
2. RPL: Agriculture SSC
3. NFDB RPL

Content availability for previous versions of qualifications:

☒ Participant Handbook ☒ Facilitator Guide ☐ Digital Content ☐ Qualification Handbook ☐ Any Other:

Languages in which Content is available: Hindi and English

Annexure 5: Detailed Assessment Criteria

Detailed assessment criteria for each NOS/Module are as follows:

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
AGR/N4936: Carry out pond and tank preparation activities	<i>Prepare the pond</i>	16	18	-	14
	PC1. co-ordinate with an authorised lab to test the level of organic matters and pH in the soil				
	PC2. apply basal manure, lime, gypsum or anyother necessary soil treatment in the recommended quantity to improve the soil fertility as advised by the lab				
	PC3. carry out de-mudding in the pond				
	PC4. drain out and sun-dry the perennial pond				
	PC5. construct dykes of recommended height atthe pond				
	PC6. install inlet and outlet pipes in the pond for the efficient entry and exit of water				
	PC7. remove aquatic weed from the pond				
	<i>Set up the tank</i>	14	22	-	16
	PC8. select an appropriate type of tank such asFibre-Reinforced Plastic (FRP), Silpaulin tank, Reinforced Cement Concrete (RCC) tank according to the species and quantity of fish tobe cultured				
	PC9. co-ordinate with an expert for the fabrication and installation of the tank				
	PC10. install air pumps, aerator and filters in the tank				
	PC11. install re-circulatory systems (RAS) asplanned				
	PC12. fill the tank and pond with aged freshwater or seawater depending on the species to be cultured				
	PC13. apply net cover on the tanks to protect the fish from predatory birds and other external threats				
	Total Marks	30	40	-	30
AGR/N4937: Assess the feed requirements and culture live feed	<i>Select ornamental fish and assess their feed requirements</i>	8	12	-	16
	PC1. select suitable species of ornamental fish to be cultured based on the water quality				
	PC2. identify the nutritional and feed requirements of selected species of fish				
	PC3. determine the feeding schedule for different stages of growth of the selected species				

	<i>Procure the ingredients for preparing feed and culturing live feed</i>	16	16	-	8
	PC4. select various ingredients based on the nutritional requirement of the selected species				
	PC5. identify the relevant vendors to procure the ingredients for feed and culturing live feed				
	PC6. procure the ingredients in the required quantity				
	PC7. store the ingredients at the recommended temperature and humidity to preserve their quality				
	PC8. maintain the record of purchase manually and/ or electronically				
	<i>Culture live feed</i>	6	12	-	6
	PC9. stock the procured material in the culture pond to culture live feed				
	PC10. culture live feed following the recommended method				
	PC11. maintain the hygiene and quality of live feed				
	Total Marks	30	40		30
AGR/N4938: Stock, maintain and harvest the ornamental fish	<i>Procure and stock the ornamental fish seed</i>	4	4	-	4
	PC1. procure healthy seeds of the selected ornamental fish species in the required quantity				
	PC2. stock the seeds in the culture pond maintaining the recommended stocking density				
	PC3. follow the recommended prophylaxis measures to prevent disease and outbreak of harmful organisms in the tank				
	<i>Carry out feeding and health management</i>	6	4	-	6
	PC4. feed the stocked seeds with the required nutrients as per the recommended feeding schedule				
	PC5. apply necessary changes to feed according to the stages of fish's growth				
	PC6. identify the signs of stress and disease in the fish				
	PC7. select an appropriate treatment or consult an expert				
	PC8. apply the prescribed treatment in the recommended quantity				
	<i>Manage the water quality</i>	4	6	-	6
	PC9. maintain optimum pond temperature according to the season to avoid stress to the fish				
	PC10. check that the optimum level of dissolved oxygen is present in the pond water				
	PC11. maintain the recommended levels of salinity and alkalinity according to the cultured fish species				

PC12. carry out aeration using aerators				
PC13. maintain optimum depth and stocking density for the cultured species				
PC14. remove the decomposing organic waste material from the pond to maintain the pH levels				
PC15. check the quality of water regularly against the relevant quality parameters				
PC 16. Arrange for periodic exchange of water				
<i>Carry out fish breeding</i>	4	6	-	4
PC17. undertake broodstock development				
PC18. carry out breeding in the culture pond following the recommended method				
PC19. stock fish in the tank when they attain the recommended growth				
PC20. rear fish in the tank to a marketable size				
<i>Harvest, condition and pack the fish</i>	4	8	-	4
PC21. check the fish to ensure it has achieved the maturity required for harvesting				
PC22. carry out prophylactic nutrition and reduce the water level in the pond before harvesting				
PC23. harvest the fish using appropriate tools and equipment, ensuring no damage to the fish				
PC24. store the harvested fish at the recommended temperature and humidity				
PC25. condition and starve the fish before packing				
PC26. pack the fish in appropriate containers/aerated polythene packs maintaining the recommended density				
PC27. protect the fish from contamination while being harvested and packed				
<i>Market the harvested fish</i>	2	4	-	2
PC28. identify the potential buyers of the harvested ornamental fish				
PC29. negotiate the price with the selected buyer(s)				
PC30. transport the fish to the buyer in the ordered quantity				
PC31. process payments using the buyer- preferred e-payment method				
PC32. maintain the record of sales and payments manually and/ or electronically				
<i>Optimise resource utilisation</i>	2	4	-	2

	PC33. optimise the usage of water and other resources in various tasks and processes				
	PC34. plug water leakages to prevent its wastage				
	<i>Perform waste management</i>	4	4	-	2
	PC35. treat the wastewater for recycling by applying lime or the approved disinfectant(s)				
	PC36. check the quality parameters of the treated water for its suitability for re-use				
	PC37. utilise the recycled water for culture operations				
	PC38. segregate waste into appropriate categories				
	PC39. dispose the non-recyclable waste in an environment-friendly manner and recycle the recyclable waste appropriately				
	Total Marks	30	40	-	30
AGR/N9908: Undertake basic entrepreneurial activities for small enterprise	<i>Plan the agricultural enterprise/ business</i>	10	14	-	10
	PC1. analyse the demand and supply of the relevant agricultural produce in the market				
	PC2. identify the target customers and assess their needs and expectations with respect to the quality and price of the produce				
	PC3. identify various types of agricultural entrepreneurship/ business opportunities				
	PC4. plan agricultural production with the use of relevant and efficient technologies for availing funds				
	PC5. identify appropriate and authentic advisory services/Government authority for skill upgradation to successfully plan and implement business activities				
	PC6. prepare a basic business plan for the agricultural entrepreneurship/business activities				
	PC7. identify appropriate sources of funding for the agricultural entrepreneurship/ business				
	PC8. coordinate with the relevant government authorities to subscribe to the relevant government schemes and programs to benefit from them				
	PC9. ensure compliance with the government structural reforms and framework along with the applicable rules and regulations while setting up the agricultural enterprise/ business				
	<i>Manage the agricultural production process</i>	8	10	-	8

PC10. select and arrange the necessary resources for the business operations				
PC11. ensure the use of relevant and efficient production technologies as per planning and availability of funds				
PC12. follow the recommended practices for efficient input resource management				
PC13. optimise the production processes and output through the amalgamation of existing practices with				
PC14. follow the recommended sustainability practices during agricultural production to prevent				
<i>Manage the post-production and marketing processes</i>	<i>12</i>	<i>16</i>	<i>-</i>	<i>12</i>
PC15. ensure the availability of proper storage infrastructures and facilities post-production of the produce as per the industry quality standards				
PC16. collect information related to the wholesale and retail price of produce				
PC17. calculate the costs incurred and determine the price of the produce for profitability				
PC18. ensure that the cost of production, transportation, and marketing are considered while calculating the cost and setting the				
PC19. collect information related to various subsidies/funds offered by the government, authorised state units and other financial institutions involved with the promotion of the produce				
PC20. select appropriate marketing channels for the produce, considering the relevant requirements and constraints				
PC21. identify various risks to production and post- production processes and manage them appropriately				
PC22. undertake outreach programs to promote agricultural products and services, and expand agri- business				
PC23. prepare and execute a marketing plan considering the 4Ps i.e. product, price, promotion, and place and 4As i.e. acceptability, affordability, accessibility and awareness				
PC24. use the relevant digital services such as e- commerce, e- payments, electronic record-keeping, etc.				
PC25. use efficient post-production logistics means to improve the supply quantity, reduce the cost to the consumer, and increase demand consequently				

	PC26. ensure all the relevant information such as quality and quantity of produce, date of manufacture, batch number, and sale is recorded electronically and/ or manually				
	PC27. coordinate with the various stakeholders for efficient and sustainable agri-business growth and development				
	Total Marks	30	40	-	30
AGR/N4955: Follow the hygiene and safety practices in culture operations	<i>Maintain the water body and its hygiene</i>	10	15	-	10
	PC1. follow the recommended practices to protect the aquaculture farm from different types of threats such as storms, predatory birds, harmful organisms, poachers, etc.				
	PC2. carry out regular maintenance of the dykes and fences in the culture pond				
	PC3. identify and remove the preying organisms from the culture pond or tank				
	PC4. remove sludge, algae, uneaten feed and any other waste materials from the culture pond or tank				
	PC5. apply the necessary disinfectants or preventive treatment in the culture pond or tank to prevent disease outbreak and the growth of harmful organisms				
	<i>Maintain the health of cultured organisms</i>	10	15	-	10
	PC6. follow the recommended practices to protect the cultured organisms from the air, water or fomite-borne contamination and diseases				
	PC7. sample the cultured organisms regularly to identify the signs of stress/ disease/ phenotypic disorders and the presence of parasites and pathogens				
	PC8. identify, quarantine and treat the unhealthy organisms following the recommended practices				
	PC9. monitor the quarantined organisms for signs of improvement and restock them in the culture pond or tank on complete recovery				
	PC10. remove the dead and moribund organisms and dispose them in an environment-friendly manner				
	<i>Maintain personal health and safety</i>	10	10	-	10
	PC11. check the relevant Personal Protective Equipment (PPE) before use and repair or replace it, as required				

	PC12. use the relevant PPE during various aquaculture operations such as the application of hazardous chemicals				
	PC13. use the recommended soap or sanitiser to keep hands sanitised				
	PC14. store hazardous chemicals, tools and equipment in the safe storage area to avoid personal harm or injury				
	PC15. administer first-aid to the injured personnel and co-ordinate with the emergency services for further medical attention				
	PC16. identify the symptoms of stress and common diseases among the aquarium fish				
	PC17. identify and quarantine the diseased or dying fish				
	PC18. treat the quarantined fish with the prescribed treatment				
	PC19. monitor the quarantined fish for signs of improvement and restock them with the aquarium fish once cured				
	Total Marks	30	40		30
DGT/VSQ/N0102: Employability Skills (60 Hours)	<i>Introduction to Employability Skills</i>	1	1		
	PC1. identify employability skills required for jobs in various industries				
	PC2. identify and explore learning and employability portals				
	<i>Constitutional values – Citizenship</i>	1	1		
	PC3. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.				
	PC4. follow environmentally sustainable practices				
	<i>Becoming a Professional in the 21st Century</i>	2	4		
	PC5. recognize the significance of 21st Century Skills for employment				
	PC6. practice the 21st Century Skills such as Self- Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life				
	<i>Basic English Skills</i>	2	3		
	PC7. use basic English for everyday conversation in different contexts, in person and over the telephone				
	PC8. read and understand routine information, notes, instructions, mails, letters etc. written in English				
	PC9. write short messages, notes, letters, e-mails etc. in English				
	<i>Career Development & Goal Setting</i>	1	2		

PC10. understand the difference between job and career				
PC11. prepare a career development plan with short- and long-term goals, based on aptitude				
<i>Communication Skills</i>	2	2		
PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings				
PC13. work collaboratively with others in a team				
<i>Diversity & Inclusion</i>	1	2		
PC14. communicate and behave appropriately with all genders and PwD				
PC15. escalate any issues related to sexual harassment at workplace according to POSH Act				
<i>Financial and Legal Literacy</i>	2	3		
PC16. select financial institutions, products and services as per requirement				
PC17. carry out offline and online financial transactions, safely and securely				
PC18. identify common components of salary and compute income, expenses, taxes, investments etc				
PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation				
<i>Essential Digital Skills</i>	3	4		
PC20. operate digital devices and carry out basic internet operations securely and safely				
PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively				
PC22. use basic features of word processor, spreadsheets, and presentations				
<i>Entrepreneurship</i>	2	3		
PC23. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research				
PC24. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion				
PC25. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity				
<i>Customer Service</i>	1	2		

	PC26. identify different types of customers				
	PC27. identify and respond to customer requests and needs in a professional manner.				
	PC28. follow appropriate hygiene and grooming standards				
	<i>Getting ready for apprenticeship & Jobs</i>	2	3		
	PC29. create a professional Curriculum vitae (Résumé)				
	PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively				
	PC31. apply to identified job openings using offline/online methods as per requirement				
	PC32. answer questions politely, with clarity and confidence, during recruitment and selection				
	PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements				
	Total Marks	20	30		
	Grand Total	170	230		150
AGR/N4963: Set up and maintain marine and freshwater aquariums	<i>Set up the marine/ freshwater aquarium</i>	8	12		6
	PC1. arrange the necessary resources to set up the marine/ freshwater aquarium such as aquarium tank, air pump, protein skimmer, heater and thermometer, etc.				
	PC 2 arrange aerators, filters and other aquarium accessories like stone, weeds, substratum etc				
	PC3. sanitise and acclimatise the relevant items before setting up in the aquarium to avoid contamination				
	PC4. set up the aquarium structure by assembling and installing the required components such as reef, rocks, pebbles, etc.				
	PC5. install timers to automate the functioning of lights, filtration pumps and heating system				
	PC6. follow the safety guidelines in setting up the marine and freshwater aquariums including electrical connections				
	<i>Stock and feed the fish</i>	6	8		8
	PC7. fill in the aquarium with the recommended quantity of treated water for the selected species				
	PC8. stock the selected varieties of aquarium fish maintaining the recommended stocking density				

PC9. acclimatise the fish before stocking in the aquarium and take appropriate measures to protect them from new tank syndrome				
PC10. feed the aquarium fish with nutritionally-balanced feed in the recommended quantity as per the feeding schedule				
<i>Maintain the aquarium and water quality</i>	<i>8</i>	<i>10</i>		<i>10</i>
PC11. maintain the recommended percentage and frequency of water exchange/ replacement in the aquarium				
PC12. stock organisms in the aquarium that help in cleaning the reef system by consuming ectoparasites and feed residues				
PC13. carry out regular sampling of the water to ensure the recommended levels of pH, ammonia, nitrite and salinity				
PC14. monitor the reef system in the aquarium for parasites and any undesirable growth that may threaten the balance of the reef system				
PC15. check the protein skimmers and filtration equipment for correct functioning to ensure efficient removal of waste matters and optimum water quality in the aquarium				
PC16. carry out regular cleaning of the aquarium to remove feed residue and any waste materials				
<i>Carry out health and disease management</i>	<i>8</i>	<i>10</i>		<i>6</i>
PC17. identify the symptoms of stress and common diseases among the aquarium fish				
PC18. identify and quarantine the diseased or dying fish				
PC19. treat the quarantined fish with the prescribed treatment				
PC20. monitor the quarantined fish for signs of improvement and restock them with the aquarium fish once cured				
Total Marks	30	40		30

Annexure 6: Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the Candidate on the required competencies of the program.

1. Assessment System Overview

In Agriculture Sector it is of ultimate importance that individuals dealing with crop production or livestock have the requisite knowledge and competencies to undertake the task. Based on the Assessment Criteria, SSC in association with empanelled AAs, define the test structure for the given job roles to cover the required skills and competencies. Assessment strategy consists of the following:

1. Multiple Choice Questions : To assess basic knowledge (Objective/Subjective)
2. Viva : To assess awareness on processes (Oral and/or written questioning)
3. Practical : To evaluate skills and identify competencies.(Observation)

Assessments for knowledge and awareness on processes may be conducted through 'real time' internet based evaluation or by conducting the same 'offline' through TABs. Skills and competencies are to be assessed by conducting 'practical' on ground through qualified and ToA certified assessors.

While it is important that an individual has adequate knowledge and skills to perform a specific task, weight age for different aspects for assessment are given as follows:

Multiple Choice Questions: 20%-30%, depending on the specific QP

Viva: 20%

Practical: 50% - 60% (Involves demonstrations of applications and presentations of procedures/tasks and other components)

Assessment will be carried out by certified assessors through empanelled assessment partners. Based on the results of assessment; ASCI will certify the learners/candidates

2. Testing Environment

Assessments are conducted on laptops, Mobiles and android tablets via both offline and online mode depending on the internet connectivity at assessment location.

In remote locations/villages, assessments get delivered through tablets without the requirement of Internet.

- Multilingual assessments (ASCI is conducting assessments in 13 + languages pan India)
- Rubric driven assessments in Practical/Viva sections and responses recorded accordingly
- All responses, data, records and feedback stored digitally on cloud
- Advanced auto-proctoring features – photographs, time-stamp, geographic-tagging, toggle-screen/copy-paste disabled, etc.
- Android based monitoring system
- End to end process from allocation of a batch to final result upload, there is no manual intervention
- Assessment will normally be fixed for a day after the end date of training / within 7 days of completion of training.
- Assessment will be conducted at the training venue
- Room where assessment is conducted will be set with proper seating arrangements with enough space to curb copying or other unethical activities

- Question bank of theory and practical will be prepared by ASCI /assessment agency and approved ASCI. Only from approved Question Bank assessment agency will prepare the question paper. Theory testing will include multiple choice questions, pictorial question, etc. which will test the trainee on his theoretical knowledge of the subject.
- The theory, practical and viva assessments will be carried out on same day. In case of more number of candidates, number of assessors and venue facilitation be increased and facilitated

Assessment			
Assessment Type	Formative or Summative	Strategies	Examples
Theory	Summative	MCQ/Written exam	Knowledge of facts related to the job role and functions. Understanding of principles and concepts related to the job role and functions
Practical	Summative	Structured tasks/Demonstration	Practical application /Demonstration /Application tasks
Viva	Summative	Questioning and Probing	Mock interviews on usability of job roles/advantages /importance of adherence to procedures. Viva will be used to gauge trainee's confidence and correct knowledge in handling job situation

The question paper pre-loaded in the computer /Tablet and it will be in the language as requested by the training partner.

3. Assessment Quality Assurance framework

Assessment Framework and Design:

Based on the Assessment Criteria, SSC in association with AAs will define the test structure for the given roles to cover the required skills and competencies. ASCI offer a bouquet of tools for multi- dimensional evaluation of candidates covering language, cognitive skills, behavioral traits and domain knowledge.

Theoretical Knowledge - Item constructs and types are determined by theoretical understanding of the testing objectives and published research about the item-types and constructs that have shown statistical validity towards measuring the construct. Test item types which have been reported to be coachable are not included. Based on these, items are developed by domain experts. They are provided with comprehensive guidelines of testing objectives of each question and other quality measures.

Type – Questions based on Knowledge Required, Case-based practical scenario questions and automated simulation based questions.

Practical Skills - The practical assessments are developed taking into consideration two aspects: what practical tasks is the candidate expected to perform on the job and what aspects of the job cannot be judged through theoretical assessments. The candidates shall be asked to perform either an entire task or a set of subtasks depending on the nature of the job role

Type – Standardized rubrics for evaluation against set of tasks in a demo/practical task

Viva Voce - Those practical tasks which cannot be performed due to time or resource constraints are evaluated through the viva mode. Practical tasks are backed up with Viva for thorough assessment and complete evaluation

Type – Procedural questions, do's and don'ts, subjective questions to check understanding of practical tasks.

Assessor has to go through orientation program organized by Assessment Agency. The training would give an overview to the assessors on the overall framework of QP evaluation. Assessor shall be given a NOS and PC level overview of each QP as applicable. Overall structure of assessment and objectivity of the marking scheme will be explained to them. The giving of marks will be driven by an objective framework which will maintain standardization of marking scheme.

4. Type of Evidence and Evidence Gathering Protocol:

During the assessment the evidences collected by AAs and ASCI are:

- Geo Tagging to track ongoing assessment
- AA's coordinator emails the list of documents and evidences (photos and videos) to the assessor one day prior to the assessment. List is mentioned below:
 - Signed Attendance sheet
 - Assessor feedback sheet
 - Candidate feedback sheet
 - Assessment checklist for assessor
 - Candidate Aadhar/ID card verification
 - Pictures of classroom, labs to check the availability of adequate equipment's and tool to conduct the training and assessment
 - Pictures and videos of Assessment, training feedback and infrastructure.
- Apart from the Assessor, Technical assistant popularly known as Proctor also ensures the proper documentation and they verify each other's tasks.
- To validate their work on the day of assessment, regular calls and video calls are done.
- On-boarding and training of assessor and proctor is done on timely basis to ensure that quality of the assessment should be maintained.
- Training covers the understanding of QP, NSQF level, NOS and assessment structure

5. Methods of Validation

- Morning Check (Pre-Assessment): Backend team of AA calls and confirms assessor/technical spoc event status. Assessor/Technical spoc are instructed to reach the centre on time by 9:30 AM / as decided with TC and delay should be highlighted to the Training Partner in advance.

- Video Calls: Random video calls are made to the technical spoc/assessor so as to keep check on assessment quality and ensure assessment is carried out in fair and transparent manner
- Aadhar verification of candidates
- Evening Check (Post Assessment): Calls are made to the ground team to ensure event is over by what time and the documentation is done in proper manner or not.
- TP Calling: To keep check on malpractice activity, independent audit team calls to TP on recorded line to take confirmation if there was any malpractice activity observed in assessment on part of AA/SSC team. If calls are not connected, email is send to TP Spoc for taking their confirmation
- Video and Picture Evidence: Backend team collects video and pictures for assessment on real time basis and highlights any issue like, Students sitting idle/trainer allowed for helping out candidates during assessment.
- Surprise Visit: Time to time SSC/AA Audit team can visit the assessment location and do surprise audit for assessment process carried out by ground team.
- Geo Tagging: On day of assessment, each technical spoc is required to login in our internal app which is Geo tagged. Any deviation with centre address needs to be highlighted to assessment team on real-time basis.

Method for assessment documentation, archiving, and Access:

- ASCI has fully automated result generation process in association with multiple AAs
- Theory, Practical and Viva marks forms the basis of the results and encrypted files generated to avoid data manipulation. All responses captured and stored in System with Time-Stamped at the end of AAs and SSC. NOS-wise and PC-wise scores can be generated.
- Maker Checker concept: 1 person prepares results and other audit result which is internally approved by AA at first and then gets vetted at the end of SSC
- All soft copy of documents is received from the on-ground tech team over mail. The same are downloaded by our internal backend team and saved in Repository. The repository consists of scheme wise folders. These scheme wise folders have job role specific folders. These specific folders have Year wise and Month wise folders where all documents are saved in Batch specific folders. All Hard copies are filed and stored in storeroom.
- **Result Review & Recheck Mechanism –**
- Time stamped assessment logs
- Answer/Endorsement sheets for each candidate
- Attendance Sheet
- Feedback Forms: Assessor feedback form, Candidate feedback form, TP feedback form
- The results for each of the candidate shall be stored and available for review (retained for 5 years/ till conclusion of project or scheme)

Annexure 7: Acronym and Glossary

Acronym

Acronym	Description
AA	Assessment Agency
AB	Awarding Body
ISCO	International Standard Classification of Occupations
NCO	National Classification of Occupations
NCrF	National Credit Framework
NOS	National Occupational Standard(s)

NQR	National Qualification Register
NSQF	National Skills Qualifications Framework
OJT	On the Job Training

Glossary

Term	Description
National Occupational Standards (NOS)	NOS define the measurable performance outcomes required from an individual engaged in a particular task. They list down what an individual performing that task should know and also do.
Qualification	A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards
Qualification File	A Qualification File is a template designed to capture necessary information of a Qualification from the perspective of NSQF compliance. The Qualification File will be normally submitted by the awarding body for the qualification.
Sector	A grouping of professional activities on the basis of their main economic function, product, service or technology.
Long Term Training	Long-term skilling means any vocational training program undertaken for a year and above. https://ncvet.gov.in/sites/default/files/NCVET.pdf